

AbstractPosition Detector

5 A position detector is provided for detecting the relative movement of first and second members which are mounted for relative movement along a measuring path. One of the members comprises a magnetic field generator for generating a magnetic field and the other member  
10 comprises first and second conductors which are inductively coupled to said magnetic field generator. The arrangement of the first and second conductors and the magnetic field generator is such that output signals are generated in a first and second receive circuits  
15 whose position varies with the relative movement between the two members. In addition to carrying information relating to the relative position between the two members, the signals induced in the receive circuits also comprise information defining the relative orientation  
20 of the two movable members, and by suitable processing of the received signals the relative orientation of the two members can also be determined. In a preferred form of the invention, the system operates to define the relative position and orientation of the two movable  
25 members in first and second directions from which the relative orientation of the two members in a plane containing the two directions can be determined. The signals induced in the receive circuits can also be processed to give an indication of the gap between the  
30 two circuits and to provide an indication of the full relative orientation of the two members.